

MARINE FAUNA OF DINAGAT ISLAND

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On April 27, 1981 a group of seven researchers and field collectors from the MSU Natural Science Museum embarked on a ten day expedition to investigate, study and collect marine and terrestrial fauna at Dinagat Island, Surigao del Norte. The expedition was undertaken to gain more knowledge of the natural history of the island.

The expedition marked the second time the island was explored. The first was in 1975 between April and May, which was conducted by Dr. Dioscoro Rabor whose main interest was on terrestrial vertebrates. Since then, there has been no subsequent explorations to assess the present status of wildlife in the area.

This is the first expedition conducted solely with the purpose of collecting and studying the marine fauna of Dinagat. Although several studies have been made on the systematics and other aspects of the biology of Philippine marine fauna, no studies have made on the marine fauna of Dinagat. The literature available on the biology of Philippine marine flora and fauna is voluminous, albeit far from complete and it is evident there is still much to discover and learn from them. Studies on Philippine marine biota include those of Herre (1928) on Philippine siganids, Zager et al (1979) on economically important invertebrates in Negros Oriental, Menez (1961) on the marine algae of the Hundred Islands, Nemenzo (1976) on Philippine invertebrates, Reyes (1976) on littoral benthic algae of Siquijor, Gomez (1981) on Philippine Coral Reefs, Voss (1963) on cephalopods of the Philippines, Sanguila

and Bombeo (1979) on the preliminary culture of squid *Sepia sp.*

This paper is the first of the series that will report on the result of the biological expedition. It reports on the marine invertebrates collected and observed. The terrestrial vertebrate group and other relevant information will be dealt with in separate reports.

Study Area, Methods and Materials

Dinagat Island is located on the northeastern tip of Mindanao, immediately north of another island, Nonoc. The island lies between latitude $9^{\circ} 53'$ and $10^{\circ} 29'$ North, and between longitude $125^{\circ} 28'$ and $125^{\circ} 44'$ East, based on location diagrams from PCGS 2535 and NC 51-8.

The main station was based in Kambinlio, a barrio one kilometer north of Loreto, the northwesternmost town which is six hours away by pumpboat from Surigao City. The camp is located at the mouth of the left limb of Buayahon River. Fronting the camp on the west is the small Puyo Island, and still farther northwest are the twin islands of Kayosa. Farther north nearer the Desolation Point is the last barrio of Panamaon.

The expeditionary team was divided into two collecting groups, the marine groups, which consisted of the biologist, zoologist and two expert divers, and the terrestrial group. Each member of the marine group was equipped with a high powered waterproof flashlight, flippers, mask, snorkel, knife, collecting bag and a spear gun. A camera was always on hand to photograph the collecting area. Dives were made twice, one in the afternoon and one at night commencing after sunset until nine o'clock.

Marine specimens which needed to be relaxed were narcotized with either alcoholized sea water, clove oil, magnesium sulfate or menthol crystals and preserved in 10% formalin, 70% or 95% ethyl alcohol. Live specimens were weighed and the shell diameter, width and length were measured with a ruler to the nearest millimeter. The specimens were assigned catalogue numbers and are now deposited in the museum stockroom.

Five collecting stations were established : Station A-Camp Station, Station B-Esperanza, Station C-Panamaon, Station D-South Puyo, Station E-East Puyo. The classification and scientific names of the specimens are those of Hegner and Engemann (1968), Barnes (1963), Hyman (1940), Lucifora (1977) and Abbot (1976).

Results and Observations

A total of 95 genera and species representing 15 classes of marine invertebrates were collected and observed. A list is given in the Appendix. The most common shells belong to the genera *Cypraea*, *Trochus*, *Lambis*, *Pterocera*, *Murex*, *Pinctada*, *Pinna*, *Tridacna*, *Acmea*, *Hippopus*, *Olive*, *Mitra* and *Pteria*.

Dives made at Stations A, C and E yielded the most number of specimens. In station A, collection included *Haliotis*, *Oliva*, *Pteria*, *Hippopus* and *Tridacna*. Station C dives collected the most number of *Cypraea*. Beautiful shells collected in Station E included *Trochus*, *Strombus*, *Cypraea tigris*, *Ficus*, *Murex*, *Harpa*, *Voluta*, *Conus*, *Terebra*, *Pecten* and *Lambis*.

Cypraea tigris was collected during the evening dives. Among live specimens seen crawling slowly on the sand at a depth of about two fathoms, the shell was completely covered with the mantle which retracted into the interior of the shell upon handling.

Only one specimen of *Acanthaster plancii*, the Crown of Thorns starfish, was collected. This species is considered the worst predator of corals. Incidentally this species is not in sufficient number to cause much damage on the corals. The reef destruction and degradation observed were due to siltation and poisoning as there were no coral rubbles observed.

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APPENDIX

A LIST OF MARINE FAUNA COLLECTED AND OBSERVED FROM DINAGAT ISLAND

COELENTERATA

Aglophenia sp.
Sertularia sp.
Cassiopea
Sarcophyton sp.
Lobophyton sp.
Schlerophyton sp.
Capnella sp.
Toeplitzella sp.
Isis sp.
Lophogorgia sp.
Lobophytum sp.
Fungia sp.

GEPHYREA

Sipunculus sp.

ANNELIDA

Bisperia sp.*

Eunice sp.

MOLLUSCA

Doris sp.

Acmea sp.

Trochus sp.

Turbo sp.

Haliotis sp.

Nerita sp.

Strombus sp.

COELENTERATA, cont'd.

Galaxea sp.*
Favea sp.*
Herpolitha sp.*
Porites sp
Pavites sp.
Pocillopora sp.
Meandrina
Acropora sp.

* OBSERVED

MOLLUSCA. Cont'd.

Ficus sp.
Cypraea sp.
Cypraea annulus
Cypraea argus
Cypraea mappa
Polinices sp.
Littorina sp.
Lambis chiragra
Pterocera scorpio
Murex sp.
Drupa sp.
Cypraea tigris
Fasciolaria sp.
Oliva sp.
Mitra sp.
Harpa sp.
Conus sp.
Melo sp.
Cymbium sp.
Helicostyla sp.
Conus aulicus
Cryptoplax sp.
Arca sp.
Mytilus sp.
Pecten sp.
Ostrea sp.
Pinctada sp.
Pteria sp.
Malleus sp.
Pinna sp.
Fragum sp.
Corculum sp.
Tridacna gigas
Hippopus hippopus
Mactra sp.
Teredo sp.
Anadara sp.
Anadonta sp.
Costa sp.
Octopus sp.
ARTHROPODA
Alpheus sp.

Uca sp.
Dromia sp.
Labinia sp.
Pilumnus sp.
Geograpsus sp.*
Grapsus sp.*
Acteades sp.
Tiarinia sp.
Thalamita pacifica
Lepas sp.
Panulirus sp.
Balanus sp.
Tetraclita sp.

ECHINODERMATA

Linkia sp.
Acanthaster planci
Culcita sp.
Ophiura sp.
Ophiotrix sp.
Tripneustes sp.
Toxopneustes sp.
Salmacis sp.
Diadema sp.
Heterocentrotus mamillatus
Holothuria sp.
Antedon sp.